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EXAMINER

HAMO, PATRICK

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.



## DETAILED ACTION

This action is in response to amendments filed on January 14, 2010.

### *Drawings*

The drawings were received on January 14, 2010. These drawings are accepted.

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-8 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohta, US 5,722,818 in view of Bar, US 4,582,468.

In regard to claim 1, Ohta discloses as known prior art in fig. 10 **a suction system for a refrigeration compressor of the type which comprises a cylinder (12); a valve plate (15) which is provided with two suction orifices (24, 25), selectively closed by a suction valve (31), and which closes a cylinder end; a cylinder head (16) mounted against a face of the valve plate opposite to that closing the cylinder and which defines a discharge chamber (chamber connected to orifice 26 within the cylinder head) occupying part of said cylinder head and partially contouring the suction orifices**, interpreted to do so as the orientation of the discharge chamber determines the position of the suction orifices); **and a suction muffler (17) comprising a hollow body having an outlet tube (18) projecting**

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**therefrom and presenting a free end (35) seated on the valve plate in coaxial alignment with a respective suction orifice, said cylinder head being provided, externally to the discharge chamber, with a reinforcing wall portion** interpreted as the lower half of element 16 **wherein the free end of the outlet tube (18) which is seated against the suction orifices (24, 25).**

Ohta does not disclose that the free end of the outlet tube is provided with two tubular projections which are parallel to each other, each being aligned with a respective suction orifice of the valve plate.

However, Bar teaches a suction muffler 24 attached to a cylinder head 20, the **outlet tube** leading from the muffler to the cylinder head **provided with two tubular projections (52) which are parallel to each other** at its **free end** (see fig. 3), **each being aligned with a respective suction orifice (50) of a valve plate.** Bar teaches that the use of two aligned tubes prevents the rotation of the muffler in response to vibrations of the compressor (col. 2, lines 35-43). Therefore, it would have been obvious to a person having ordinary skill in the art to have provided two tubular projections for a more secure attachment between the muffler and the cylinder head.

In regard to claim 2, the portion interpreted as the reinforcing wall portion in Ohta is spaced from the outlet tube where it surrounds the discharge chamber, this portion “facing” the outlet tube in that it has a surface that is open toward the outlet tube..

In regard to claim 3, the reinforcing wall portion of Ohta helps maintain the tube on the valve plate.

In regard to claim 4, the outlet tube passes through a hole formed in the reinforcing wall portion.

In regard to claim 5 the reinforcing wall portion is seated against the valve plate.

In regard to claim 6, the reinforcing wall portion occupies the area of the cylinder head external to the discharge chamber.

In regard to claim 7, while the reinforcing wall portion is opened in an axially shifted position to accommodate the outlet tube, it would have been obvious to a person having ordinary skill in the art that the position of the outlet tube and the corresponding opening in the reinforcing wall portion is an obvious matter of engineering design choice depending on the dimensional and geometric constraints of the design, and therefore does not patentably distinguish over the above cited art.

In regard to claim 8, the free end of the outlet tubes of both references is fitted into the interior of a suction orifice in the valve plate.

In regard to claim 10, the cylinder head of Bar comprises a pair of openings which are parallel to each other, each receiving a respective tubular projection of the outlet tube.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over the references as applied to claim 1 in view of Tomell et al., US 2002/0098093.

The references as applied to claim 1 above teach all of the limitations of independent claim 1 substantially as claimed, but fail to disclose a fixation element constantly forcing the cylinder head against the valve plate. However, Tomell teaches a

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similar suction muffler and cylinder head attachment system for reciprocating compressors including a restraining plate 82 that may be interpreted as a fixation element constantly forcing the cylinder head against the valve plate. It would have been obvious to a person having ordinary skill in the art to have modified the references as applied to claim 1 above with the restraining plate of Tomell to further secure the muffler and cylinder head to each other.

### ***Response to Amendment***

Applicant's arguments filed January 14, 2010 with respect to the rejection of claims 1-11 under 35 U.S.C. 112 have been fully considered and are persuasive. The rejection of claims 1-11 on this ground has been withdrawn.

### ***Response to Arguments***

Applicant's arguments filed January 14, 2010 with respect to the rejections of claims 1-11 under 35 U.S.C. 103 have been fully considered but they are not persuasive. The applicant argues that neither Ohta nor Bar teach that the outlet tube of the suction muffler hollow body is seated against the suction orifices. However, Ohta discloses that it is known in the art to have the body pressed against the orifices. Ohta discloses that it is preferable to provide a pressure space, however, this does not mean that Ohta *teaches away* from the possibility of seating the tube against the orifices. See MPEP 2141.02(6). In *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540 (Fed. Cir. 1983), claims were directed to a process of producing a porous article by expanding

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shaped, unsintered, highly crystalline poly(tetrafluoroethylene) (PTFE) by stretching said PTFE at a 10% per second rate to more than five times the original length. The prior art teachings with regard to unsintered PTFE indicated the material does not respond to conventional plastics processing, and the material should be stretched slowly. A reference teaching rapid stretching of conventional plastic polypropylene with reduced crystallinity combined with a reference teaching stretching unsintered PTFE would not suggest rapid stretching of highly crystalline PTFE, in light of the disclosures in the art that teach away from the invention, i.e., that the conventional polypropylene should have reduced crystallinity before stretching, and that PTFE should be stretched slowly.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PATRICK HAMO whose telephone number is (571)272-3492. The examiner can normally be reached on M-F 8:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Devon Kramer can be reached on 571-272-7118. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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